

REMARKS

This Application has been reviewed in light of the Final Office Action dated September 20, 2005. Claims 1-24 are pending, with Claims 1, 7, 13 and 19 in independent form. No amendments to the claims have been made by this response. Favorable reconsideration is requested.

Claims 1-24 have been rejected under 35 U.S.C. § 102(b) as allegedly anticipated by U.S. Patent No. 4,791,676 (Flickner et al.). Applicant respectfully traverses these rejections and submits that all claims are patentable over the Flickner et al. patent for at least the following reasons.

Claim 1 requires a method of altering the appearance of an input digital image when printed, the digital image comprised of an array of pixels and wherein each pixel is assigned a digital value representing marking information, the method comprising the steps of defining each pixel as either a background pixel, interior pixel, or an edge pixel; identifying enclosed edge pixels located on the edge of enclosed areas of print characters having enclosed areas, and, reassigning the digital value of one or more enclosed edge pixels independently of other pixels.

Notable features of Claim 1 are identifying enclosed edge pixels located on the edge of enclosed areas of print characters having enclosed areas, and reassigning the digital value of one or more enclosed edge pixels independently of other pixels. Support for these features can be found in the specification at least at paragraph [0091], which is described with reference to FIG. 10. This portion of the specification describes problems associated with over-reducing line width in characters especially of a small font size. This paragraph also describes problems associated with apparent shift of character locations. This paragraph describes a solution to these problems that involves assigning "pixel values such that closed characters (those having enclosed spaces such as o, d, b, etc.) have reduced exposure only for the interior or exterior edges of enclosed areas." See page 27, lines 9-11 of the specification. As shown in FIG. 10 a letter "O", which is a closed character having an enclosed area, has interior edges and exterior edges with different exposure values assigned to them. "This helps to maintain a center location of [the] character without achieving excessive linewidth reduction." (It is to be understood, of course, that the scope

of Claim 1 is not limited to the details of this embodiment, which is referred to only for purposes of illustration.)

The Office Action at paragraphs 4 and 5 at pages 2 and 3 respectively, alleges that the Flicker et al. patent teaches the features of Claim 1 of identifying enclosed edge pixels located on the edge of enclosed areas of print characters having enclosed areas, and reassigning the digital value of one or more enclosed edge pixels independently of other pixels. In particular, at paragraph 5 of the Office Action, an image frame according to the Flickner et al. patent is equated with a print character according to Claim 1. ("Flickner discloses enclosed edge pixels located at the edge of enclosed areas of print characters (image frame)")

Although Applicant acknowledges that the Flickner et al. patent discloses plural image frames 16, 18, 20, and 22, as shown in FIG. 1 and col. 4, lines 15-35, Applicant respectfully does not agree that such frames can be considered print characters according to Claim 1. The American Heritage Dictionary of the English Language, Fourth Edition (Copyright 2000, published by Houghton Mifflin Company) defines "character" as a "mark or symbol used in a writing system." Paragraph [0091] of the specification supports this definition by giving the letters "o," "d," and "b" as examples of characters having enclosed areas. Paragraph [0091] also gives the letters "v," "c," "m," "n," "t," "y," "w," and "m" as other examples of characters. Although Claim 1 is not limited to the details of the embodiment described at paragraph [0091] of the specification, Applicant respectfully submits that the phrase "print character," according to Claim 1, can reasonably refer to no more than a symbol from a set of symbols, whether or not the symbols are used in a writing system. Further, Applicant submits that a print character, by nature, must meet strict positional requirements such that each character is formed at a consistent location relative to one or more boundary conditions. For example, an uppercase "P" must be formed so that the top of the "P" is formed at the top of the line on which it is printed, and the bottom of the "P" is formed at the bottom of the line on which it is printed.

In contrast to a print character, an image frame, according to the Flickner et al. patent, is understood to be akin to a piece of paper that an object is printed on, and is not understood to be a print character itself. To elaborate, the Flickner et al. patent describes that an image may be comprised of plural frames

(16, 18, 20, and 22, for example) that are stitched together. See col. 4, lines 15-35. The image frames, like pieces of paper, are understood to be capable of retaining all sorts of objects, not just characters, at any location within the frame or even between frames. For example, FIG. 1 of the Flickner et al. patent shows three objects 10, 12, and 14, not understood by Applicant to be limited to characters, of which portions of object 14 are located in all four image frames 16, 18, 20, and 22. See col. 4, lines 15-35. Accordingly, Applicant submits that an image frame does not meet the definition of a print character because each image frame is not, itself, a symbol from a set of symbols, and the objects retained by the Flickner et al. patent's image frames do not have to meet the positional requirements that characters are subjected to.

In summary, it is Applicant's position that an image frame, according to the Flickner et al. patent, is not a print character according to Claim 1. Consequently, Applicant respectfully submits that the Flickner et al. patent does not teach or suggest identifying enclosed edge pixels located on the edge of enclosed areas of print characters having enclosed areas, and reassigning the digital value of one or more enclosed edge pixels independently of other pixels, as required by Claim 1. For at least these reasons, Applicant submits that Claim 1 is patentable over the Flickner et al. patent.

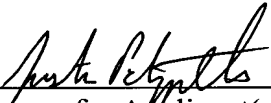
Independent Claims 7, 13 and 19 include the same features described above with respect to Claim 1. Accordingly these claims are submitted to be patentable over the Flickner et al. patent for at least the same reasons. The other rejected claims in this application depend from one or another of the independent claims discussed above and therefore are submitted to be patentable for at least the same reasons. Since each dependent claim also is deemed to define an additional aspect of the invention, individual reconsideration of the patentability of each claim on its own merits is respectfully requested.

This Response After Final Action is believed to place this application in condition for allowance and, therefore, its entry is believed proper under 37 C.F.R. § 1.116. Accordingly, entry of this Response After Final Action, as an earnest effort to advance prosecution and reduce the number of issues, is respectfully requested. Should the Examiner believe that issues remain outstanding, it is respectfully requested that the Examiner contact Applicant's

undersigned attorney in an effort to resolve such issues and advance the case to issue.

In view of the foregoing remarks, Applicant respectfully requests favorable reconsideration and the allowance of the present application.

Respectfully submitted,



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If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.